

REMARKS

This Amendment is responsive to the Office Action dated November 4, 2004. By this Amendment, Applicants have added new claim 31. Claims 14-17, 19-22, 24-26 and 30-31 are now pending in the present application.

In the Office Action, the Examiner rejected claims 14-17, 19-22, 24-26, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Brucker et al. (U.S. Patent No. 5,500,012) in view of Cosens et al. (U.S. Patent 4,034,762)

Applicants respectfully traverse this rejection. The references applied by the Examiner fail to disclose or suggest the features required by the pending claims. Moreover, the applied references provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Unlike amended claims 14-17 and 19-22, for example, Brucker et al. and Cosens et al., either alone or in combination, fail to disclose or suggest a treatment device assembly comprising a needle having a radio frequency electrode with a hollow core and an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, in combination with a cannula for slidably receiving the needle so as to guide said needle, a control mechanism for extending and retracting the needle, and means for interlocking the assembly to the housing of an endoscopic surgical instrument so as to extend said needle and cannula through a conduit defined by the surgical instrument.

Similarly, Brucker et al. and Cosens et al. neither disclose nor suggest a medical treatment device comprising an elongate probe member having a guide cannula mounted in a passageway of an elongate probe member, a needle slidably disposed in a lumen of the guide cannula, wherein the needle is in the form of a radio frequency electrode having an axial lumen extending therethrough with an insulating layer surrounding a portion of the electrode proximate a distal end of the electrode, and a control mechanism coupled to a proximal extremity of the probe member and secured to the needle for advancing and retracting the needle relative to the guide cannula, as set forth in claims 24-26 and 30.

As discussed in the Amendment filed January 9, 2004, Brucker et al. describes an ablation catheter system for ablation of heart tissue. In FIGS. 10 and 11, Brucker et al. depicts ablation catheters carrying ablation elements in the form of radio frequency and microwave antennas, respectively (see Brucker et al. FIG. 10, reference numeral 108, for example). In operation, the Brucker et al. catheter is inserted into either arteries or veins and placed inside one

of the chambers of the heart. The catheter is a "guiding and mapping" catheter which moves inside the heart, either the ventricle or atrium, identifies an active site for ablation, and holds a position in the active site via a fixation wire (e.g., reference numeral 128). RF radiation is delivered via microwave antenna 108.

Despite these differences, however, the Office Action states that it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the device of Brucker et al. as taught by Cosens et al. to contain an insulating layer surrounding the electrode for the well known purpose of separating the electrode from the body of the device to prevent any unwanted disruption of ablation.

Applicants respectfully disagree. The microwave antenna 108 of Brucker et al. cannot be properly compared to Applicant's claimed needle having a radio frequency electrode with a hollow core and an insulating layer surrounding a portion of the electrode proximate a distal end of the needle. The needle may pierce through the urethra so as to penetrate and deliver radio frequency ablation energy to the prostate of the patient. In contrast, the device of Brucker et al. is inserted within the chambers of the heart via a vein or artery, and therefore no needle is required. The solution to the problem that the Brucker et al. catheter is designed to solve, namely, ablation of heart tissue via a radio frequency antenna within the chambers of the heart, does not require, and is therefore not all concerned with, use of a needle. The Brucker et al. device, therefore, does not teach or suggest use of a needle having a radio frequency electrode as recited in Applicant's independent claims 14 and 24.

Moreover, Brucker et al. does not teach or suggest use of an insulating layer surrounding a portion of the electrode, nor would it have suggested to someone of skill in the art at the time the invention was made the desirability of modification to include an insulating layer surrounding a portion of the electrode into the Brucker et al. system. Indeed, none of the embodiments described by Brucker et al. even contemplates a needle having a radio frequency electrode, let alone the incorporation of an insulating layer as required by amended claims 14-17, 19-22, 24-26 and 30.

Cosens et al. further fails to provide a teaching that would have suggested the incorporation of a radio frequency needle in the Brucker et al. system, or the incorporation of an insulating layer to surround a portion of a needle electrode. Again, such modifications would not have been obvious or even necessary in the Brucker et al. system for the reasons discussed above. Therefore, Cosens et al. offers no teaching sufficient to overcome the fundamental

deficiencies in the Brucker et al. reference. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 14-17, 19-22, 24-26 and 30 as being unpatentable over Brucker et al. in view of Cosens, et al.

New claim 31

New claim 31 recites a treatment device assembly for an endoscopic surgical instrument having a housing and being provided with a conduit comprising a needle having a radio frequency electrode with a hollow core and an insulating layer surrounding a portion of the electrode proximate a distal end of the needle, a cannula for slidably receiving said needle so as to guide said needle, wherein said cannula includes a curvable surface for deflecting said needle at an angle from a primary axis of said needle, a control mechanism for extending and retracting said needle, means for interlocking said assembly to the housing of said endoscopic surgical instrument so as to extend said needle and cannula through the conduit of said endoscopic surgical instrument, and a radio frequency generator for supplying RF energy to said electrode.

For the reasons discussed above with respect to claim 1, Applicant respectfully submits that new claim 31 is patentable over the references cited. Applicant respectfully requests allowance of new claim 31 and all pending claims.

Conclusion

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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March 4, 2005
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